BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

IN RE APPLICATION NO. 99-1

SUMAS ENERGY 2 GENERATION FACILITY

EXHIBIT _____(KC-T)

APPLICANT'S PREFILED DIRECT TESTIMONY

WITNESS # 3: KATY CHANEY

REVISED 6/21/200

Q. Please introduce yourself to the Council.

A. My name is Katy Chaney. I am Manager of Pacific Northwest Environmental Services at Dames & Moore in Seattle. I have been with Dames & Moore since 1989, where I was a Senior Project Manager and Unit Leader for Land Use and General Planning before being promoted to my current position. As Manager of Pacific Northwest Environmental Services, I manage environmental permitting efforts, environmental assessments, environmental impact statements, land use, energy and natural resource compliance evaluations, air quality, noise, planning and siting studies, and assistance with land use, shoreline and construction permits.

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Prior to joining Dames & Moore, I was Director of the Land Use division of the City of Seattle's Department of Construction and Land Use. My educational and professional background is described in greater detail on my resume, which is provided as Exhibit ___ (KC-1).

Q. What is the subject of your testimony?

A. My direct testimony is intended to address the following subjects:

First, I will briefly provide some background information regarding Dames & Moore and I will describe the firm's experience with environmental assessments and energy facility siting proceedings.

Second, I will describe the environmental analysis that has been conducted in connection with the Application for the Sumas Energy 2 Generation Facility.

Third, I will describe the environmental impacts expected to occur as a result of the Sumas Energy 2 Generation Facility and the measures that have been proposed to mitigate those impacts.

Background

Q. What sort of business is Dames and Moore?

A. Dames & Moore was founded in 1938 as a geotechnical consulting firm. In June 1999, Dames & Moore was acquired by the URS Corporation. URS provides general engineering and consulting, transportation, process/chemical engineering; construction services; and specialty engineering and consulting. Headquartered in San Francisco, the company operates in 38 countries and is staffed by over 16,000 employees.

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URS/Dames and Moore specializes in facility siting investigations, environmental baseline and impact assessments, environmental studies, engineering, and applied earth sciences. Dames & Moore has served more than 35,000 clients, including federal, state and local governments as well as eighty percent of the leading corporations in the United States.

Q. Describe Dames & Moore's experience with power plants?

A. Dames & Moore has worked on hundreds of power plant projects in the United States, providing environmental and engineering services in connection with power plant construction, licensing and operation.

Q. What is Dames & Moore's experience with EFSEC applications?

A. In addition to the Sumas Energy 2 application, Dames & Moore has prepared five other EFSEC applications: (1) Application 96-1 for the Cross Cascade Pipeline Project; (2) Application 94-1 for the Satsop Combustion Turbine Project; (3) Application 94-2 for the Chehalis Generation Facility; (4) Application 93-1 for the Cowlitz Cogeneration Project; and (5) Application 92-1 for the Trans Mountain Pipeline. The Cross Cascade Pipeline application was withdrawn by Olympic Pipe Line, and the applicant for the Trans Mountain Pipeline decided not to file the application. The three power projects have been recommended by EFSEC and approved by the Governor of the State of Washington.

Q. What was your role in the previous five applications?

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A. I served as Dames and Moore's Project Manager for all five of the applications. In that capacity, I had primary responsibility for drafting the applications and supervising the team of engineers and technical experts who performed the environmental analysis. I worked with state agencies and local jurisdictions to reach stipulated agreements resolving their environmental concerns. I also testified as an expert witness on behalf of the four projects that proceeded to adjudicatory hearings.

Analysis of Environmental Impacts

Q. Please describe in general terms the analysis that has been conducted to assess the environmental impacts of the Sumas Energy 2 (SE2) Generation Facility project.

A. The SE2 project is the construction and operation of a 660 MW combined cycle combustion turbine power plant on an approximately 37-acre site in Sumas, Washington. The project also involves the construction of a 4.5 mile natural gas pipeline and a 0.5 mile section of 230-kV electrical transmission lines running north from the site to the Canadian border. The transmission lines continue north for an approximate total distance of 5.9 miles to connect to B.C. Hydro's Clayburn Station in British Columbia.

The project site, natural gas line corridor, and the electrical transmission line corridor have all been surveyed by biologists, planners, and cultural and historical resource scientists. Wetlands delineations of the S2GF site and the natural gas pipeline were first conducted by David Evans and Associates in 1992, and ~~resurveyed~~ reviewed in 1998 and 1999 by Bexar Environmental Consulting Ltd., and resurveyed by Bexar in

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2000 using the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual. The results of these delineations have been confirmed by the Natural Resource Conservation Service (NRCS). During 1998 and 1999, Bexar also surveyed the wetlands along the electrical transmission line, and has made numerous visits to the site as part of developing the wetlands mitigation plan. Bexar has also prepared a wetlands functions and categorization assessment for all project facilities using the Washington Department of Ecology Draft Wetland Characterization Manual.

Wildlife and fisheries surveys were conducted in September 1998 as part of preparing the January 1999 Application. Other than drainage, there is no open water on site. The natural gas pipeline will cross under three water bodies (the Sumas River and two creeks), and will be drilled under the stream beds to prevent any impacts to aquatic resources.

The powerplant portion of the site was surveyed for cultural and historical resources in 1995. This survey work was expanded in 1998 to add the remainder of the 37-acre site, the natural gas pipeline and the electrical transmission line.

A number of water studies have been performed for the site and the surrounding area by David Evans and Associates, Robinson and Noble, and KCM including the pump test information that is included as an appendix to the Application and the flood plain analysis performed by KCM.

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Subsurface geology and geotechnical conditions for the site and the surrounding vicinity were investigated in 1995 by GeoEngineers. This investigation included the drilling of seven boreholes and the installation of three groundwater monitoring wells.

The site and the surrounding area were also surveyed by a land use planner in the fall of 1998, and then by a landscape architect in 1999 as part of preparing visual simulations for the revised Application.

The description of the extensive work done on air quality and noise is included in the testimony of Eric Hansen.

Q. What was Dames & Moore's role in this work.

A. In mid-1998, SE2 engaged Dames & Moore to prepare the Application for Site Certification for the Sumas Energy 2 Generation Facility (S2GF), originally filed with the Council in January 1999, as well as updated pages filed with the Council in January 2000. I will refer to the updated Application simply as "the Application." (Exhibit _____).

In preparing the Application, Dames & Moore has conducted field work and studies on geology and soils, vegetation, wildlife and wildlife habitat, aquatic resources, land use, socioeconomics, public services, recreation, and visual resources. Dames & Moore also managed and/or coordinated the technical work for the application performed by other consultants. As of March 31, 2000, Dames & Moore has spent

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more than 3,000 hours in gathering data, working in the field, preparing the Application and meeting with local, state and federal agencies.

Key members of the Dames & Moore project team included Mark Molinari, Roy Elliott, David Every, Robert Neilsen, and Robert Mott and myself. Resumes of the team members are provided as Exhibit ____ (KC-2)

Q. Who were the other consultants working on the project?

A. Several other consulting firms played a significant role in analyzing some of the issues associated with this project. McCulley Frick & Gilman addressed air emissions and sound issues. Two firms – Robinson & Noble and David Evans & Associates – addressed water resource issues. Bexar Environmental Consulting addressed wetland issues. Historical Research Associates addressed cultural resource issues. Transportation Solutions Inc. addressed traffic and transportation issues.

Q. In addition to preparing the Application for Site Certification, has SE2 applied for or obtained other permits relating to this project?

A. Yes. In addition to the Application for Site Certification filed with EFSEC, SE2 has filed applications for several other permits related to this project:

(1) SE2 has filed a notice of intent to be covered by two nationwide permits issued by the United States Corps of Engineers authorizing the filling of wetlands pursuant to Section 404 of the Clean Water Act. This was approved by the Army Corps of Engineers. In connection with these permits, SE2 has developed a detailed Wetland Mitigation Plan, copy of which is provided as Appendix ~~A~~ C-8 to the Application.

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SE2 is working closely with the Corps of Engineers to obtain approval of the mitigation plan.

(2) SE2 has applied for Presidential Permits authorizing the border crossing of the natural gas pipeline and the electric transmission line. In connection with these permits, the Department of Energy's Office of Fossil Energy (OFE) is the lead agency preparing an Environmental Assessment in compliance with the National Environmental Policy Act (NEPA). We are in the process of submitting additional information, in response to comments from OFE, for their NEPA Environmental Assessment. The Federal Energy Regulatory Commission (FERC) issued SE2 a Presidential Permit authorizing the pipeline crossing on December 22, 1999.

(3) SE2 has also applied to the Canadian National Energy Board (NEB) to obtain the necessary approvals to construct the proposed 230 kV transmission line from the U.S.-Canada border to BCHydro's Clayburn station located near Abbottsford, British Columbia, and for a Gas Export License to permit the exportation of natural gas from Canada to the U.S.. The Canadian Ministry of the Environment is conducting its own environmental review process regarding that aspect of the project, and a Canadian Environmental Assessment, prepared much in the same manner as would be required under NEPA, is under review by the NEB.

Environmental Impacts

Q. Describe the environmental impacts of the project, leaving aside the natural gas pipeline and the electrical transmission lines for now.

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A. The Application discusses the impacts of the project on all elements of the environment. The principal environmental areas addressed in the Application are water supply, water quality, flood control, air quality, noise, plants and animals, socioeconomics, land use, and visual impacts.

Q. What are the water needs for the project and how will these needs be met?

A. Sections 2.5 and 3.3 of the Application address water supply issues. The water use plan developed by SE2 is structured to minimize water consumption by using a combination wet/dry cooling system. No water is used for cooling when ambient air temperatures are below 29°F. In negotiations with the City of Sumas subsequent to filing the Application, SE2 has agreed to use a small reverse osmosis (RO) treatment unit to reduce waste water flow, and the use of this unit will also reduce the amount of water needed to operate the facility. The annual average water demand will be approximately 635 gpm. The peak water demand ~~is 849~~ will be approximately 760 gallons per minute, which occurs when ambient air temperatures exceed 59°F.

SE2 will purchase water from the City of Sumas. The City has already issued a Certificate of Water Availability to the project, a copy of which is included in Appendix A-3 of the Application. Prior to agreeing to provide water for the S2GF, the City determined that this water could be provided without exceeding the City's combined maximum instantaneous water right withdrawal limit of 3,611 gpm. The issue water supply is addressed in greater detail in the testimony of Burt Clothier from Robinson & Noble.

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Q. Does the project require any new water rights?

A. No. S2GF will not require the expansion of any existing water right or a new water right. The existing wells at the Sumas municipal well field are capable of withdrawing water near, or in excess of, their water right limits. The May Road well field will require one or two additional wells to maximize use of the existing water rights. These wells can be installed under the existing water right (see Appendix ~~C~~ A-3of the Application).

Q. How will wastewater from the facility be handled?

A. Wastewater will be transported to the City of Sumas sewer system, which is connected to the Abbotsford sewer system. At the time it filed its Application, SE2 estimated the ~~The~~ maximum wastewater discharge ~~will~~ to be 256 gpm. On November 22, 1999, the City of Sumas had issued a certificate to SE2 agreeing to accept up to 260 gpm of wastewater from the project (see Appendix C of the Application). In recent negotiations with the City of Sumas, SE2 has agreed to substantially reduce its waste water flow by installing a small reverse osmosis (RO) treatment unit on site. Using the RO system, the monthly average waste water flow will range from 17-27 gpm, or 24,480 – 38,880 gallons per day. In the context of negotiating a stipulation, the City has agreed to allow the Sumas Cogeneration Company, L.P. to transfer a portion of its 80,000 gallons per day sewer capacity contract to SE2. Because the Sumas Cogeneration Company facility is capable of reducing its waste water flow to approximately 30,000 gallons per day, there is sufficient capacity remaining to accommodate SE2's waste water flow. No amendment of the Sumas-Abbotsford waste water treatment contract will be necessary.

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Q. Will the facility have any effect on surface water quality in the surrounding area?

A. No. Sections 2.10 and 3.3 of the Application address surface water issues in detail.

During construction of the facility, mitigation measures will be designed to prevent erosion and silt runoff into nearby surface waters. These mitigation measures will include silt fencing, sediment traps, erosion control blankets, and a runoff detention pond.

During operation, the facility should not adversely affect surface water quality in the area. As I explained previously, process wastewater will be discharged to the City of Sumas sewer system and ultimately treated at the regional wastewater treatment plant in Abbotsford, British Columbia. The facility will develop a Stormwater Pollution Prevent Plan, and will maintain a stormwater detention and treatment system on site. Containment areas and best management practices will also be used to prevent chemicals and fuels used and stored on the site from mixing with stormwater runoff.

Q. Will the facility have any effect on ground water quality in the area?

A. No. As I explained, the process waste water will be treated off site, and extensive precautions will be taken to prevent the release of fuels and chemicals stored on site. It is also important to note that the facility will be located on low-permeability clay soil, approximately a half mile from the unconfined portion of the aquifer. As a result,

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there is little chance that any inadvertent release would contaminate local groundwater.

Q. Does the project require any filling of the site, and if so, will it affect the floodplain?

A. As described in Section 2.15 of the Application, the site lies within the 100-year flood plain of Sumas and Johnson Creeks in a nearly flat area that includes wetlands and historic drainage routes. A study of the flood plain and the related mapping indicates that the 100-year base flood level is approximately 42.5 feet, plus or minus 0.5 feet in the vicinity of the project. The site finished grade will range from approximately 44.0 feet to 46.0 feet. Approximately 130,000 cubic yards of fill material will be needed for the structural fill at the site.

The proposed fill is consistent with local requirements. The Sumas flood ordinance and the Whatcom County ordinance allows fills within the 100-year floodplain. The City of Sumas developed a Flood Management Plan in 1997, which authorizes the industrial area surrounding the S2GF site to be filled. The City's consultant evaluated the impact of filling this much larger area and concluded that the largest impact during a 100-year flood would occur south and southwest of the facility, and would be no more than 10 inches. Because the fill proposed by SE2 is much smaller, the impact during a 100-year flood is also expected to be much smaller.

Q. Can you summarize the air quality impacts?

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A. Air quality impacts and emissions are discussed in Sections 2.11, 3.2 and 6.1 of the Application. The combustion turbine combined cycle units will incorporate Best Available Control Technologies (BACT). Atmospheric emissions will comply with all applicable federal and state air quality regulations. The S2GF will be fueled primarily by natural gas. ~~, but~~ SE2 is also seeking permission to use very low sulfur distillate oil for up to 15 days a year, but has agreed to limit its use of distillate oil to no more than an average of 10 days a year over a 10 year period. The flexibility to use distillate oil for short periods will allow SE2 to free up natural gas supplies to supply residential uses during cold snaps.

Natural gas is a relatively clean burning fuel that produces lower emissions of nitrogen oxides, sulfur dioxide, carbon monoxide, carbon dioxide and particulate matter than other fossil fuels. The high efficiency combined-cycle design of the SE2 facility will also allow more electricity to be generated with less fuel, and therefore, with lower emissions than a conventional power plant.

The SE2 facility will utilize the Best Available Control Technology (BACT) to limit air emissions and comply with all federal and state regulatory requirements.

A Selective Catalytic Reduction (SCR) system will be used to limit emissions of nitrogen oxides (NOx) to ~~3~~ 2 ppm during natural gas firing and ~~12~~ 6 ppm during oil firing. These emission levels are substantially lower than emission control levels identified for two similar natural gas fired power plants recently permitted in Washington.

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An oxidation catalyst will be used to limit carbon monoxide emissions to 2 ppm during gas firing and 12 ppm during oil firing. This is equal to or better than emissions rates approved for the most recent similar plants in Washington.

Emissions of sulfur dioxide (SO2) will be only 1 ppm during natural gas firing, and 10 ppm during oil firing.

As part of the environmental review of the proposed project, SE2's consultants at MFG, Inc. have conducted some of the most extensive air quality modeling analysis ever conducted in the Pacific Northwest. EPA's dispersion model demonstrated that pollutant concentrations attributable to the SE2 facility will be far below regulatory limits. A sophisticated regional air quality modeling study demonstrated that normal operations of the facility would not affect regional visibility in Class I areas such as North Cascades and Olympic National Parks.

The high efficiency design of the SE2 facility will also minimize the emission of so-called "greenhouse" gases. Although greenhouse gas emissions are not regulated by federal or state law, SE2 proposes to make a substantial voluntary investment of $1 million in greenhouse gas mitigation projects.

Eric Hansen's testimony discusses air quality in more detail.

Q. What will be the sound levels coming from the project?

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A. Noise impacts are discussed in Section 4.1 of the Application. The S2GF has been designed to minimize sound emissions and to meet the City's noise limits of 50 dBA at residential property lines at night. The facility will be located at a site in Sumas' industrial area, and the site layout itself is designed to minimize impacts to nearby residents. SE2 has also included extensive sound abatement measures in the facility design. Among other things, turbines and generators will be enclosed in an insulated building, sound attenuation technologies will be used in the heat recovery steam generators and exhaust stacks, and sound barriers will be erected on the north side of the transformers. EPA Region 10 guidelines evaluate increase in sound levels above existing conditions using the following criteria: (a) an increase of 0 to 5 dBA is considered a slight impact; (b) an increase of 5 to 10 dBA is considered a significant impact; and (c) an ~~incerase~~increase of greater than 10 dBA is considered a very serious impact. A number of noise mitigation measures have been included in the project to reduce the noise levels, including putting the turbines in a building and using sound-deadening materials. When both units of the S2GF are operating at 100% of capacity, sound levels at the residential properties near the site will cumulatively increase from 1 to 4 dBA. Under the EPA guidelines, this would be considered a slight impact. The sound from the plant will not exceed the City's nighttime limit of 50 dBA as measured at the residential property line.

Q. Will the use of the site affect wetlands or wildlife habitat?

A. The entire site is approximately 37 acres. Approximately 20 acres of the site will be developed for the facility. This 20-acre portion has historically been used for agriculture, with corn being the most recent crop. Within the 20-acre portion, there is

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approximately 0.9 acre of farmed wetland pasture and approximately 1 acre of wetland ditch, both of which will be filled as part of the development. The wetland ditch contains mostly reed canary grass and barnyard grass.

[Please note: The following paragraph was based on the wetland mitigation proposal filed with the Application. Negotiations regarding wetland mitigation are on-going, and therefore, the following numbers may change prior to the adjudicatory hearing.] In order to compensate for the loss of this relatively low quality wetlands, SE2 proposes to create, enhance and preserve a total of 11.46 acres. SE2 will create approximately 1.5 acres of new wetland by lowering the existing ground elevation in an area approximately 700-feet wide by 120-feet, and then planting the area with native shrubs and trees. SE2 will enhance approximately 0.56-acres of farmed wetland pasture by planting it with native shrubs and trees. SE2 will also preserve approximately 9.4 acres of wetlands on the western portion of the site. The 9.4 acres is made up of 8.8-acres of palustrine shrub area with palustrine forested areas and 0.6-acre palustrine emergent fringe. The 9.4-acre wetland is adjacent to the area proposed for new or enhanced wetland. The entire area of 11.46-acres of wetland will be either dedicated to the City of Sumas for permanent open space or placed into a conservation easement. A minimum of 25 feet of enhanced buffers will be provided around the wetland area to protect the habitat. A diagram showing the site and the wetland mitigation area is attached as Exhibit ___ (KC-3)

A Dames & Moore biologist surveyed the site in September 1998 for wildlife use. The forested wetland area has perching trees for birds and provides cover or foraging areas

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for small mammals and amphibians. This area will be protected and increased through the creation of additional wetland area. The 20-acre portion to be developed for the facility is clear of vegetation and has been used for seasonal crops. Because of the agricultural use, there will be limited impacts to wildlife. Small mammals such as voles or field mice use the reed canary grass as habitat.

Q. Will any unique species be affected by the development of the site?

A. No, as described in Section 3.4.5 of the Application, Dames & Moore wildlife and fisheries biologists surveyed the 37-acre for federal status species and state priority species and habitats in September 1998. Bald eagles nest and forage along streams and rivers in the Sumas area approximately one mile east of the plant site, and will not be affected by construction or operation. No other unique species or habitats will be affected by the development.

Q. What are the socioeconomic of the project?

A. Socioeconomic impacts from the project will be positive. They are described in Section 8.1 of the Application. The construction workforce will average 200 for an 18-month period, and will peak at approximately 400 workers for a period of 4 months. It is estimated that 65 percent of these workers will be hired locally from Whatcom, Skagit or Snohomish Counties. Total payroll costs for the project, including fringe benefits and other labor overhead costs, are projected at $30.6 million, of which approximately $11 million is expected to be expended in Whatcom County. Local non-salary costs for construction materials, services and equipment leasing is estimated to be $22 million.

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After completion, the value of the project will be approximately $385 million in 1999 dollars. Operation of the S2GF will require approximately 23 full-time employees, plus 10-30 part-time contractors or employees who will perform maintenance work at the site. The estimated direct payroll for the permanent workforce is $1.35 million. Another $1.2 million would be spent on purchases from suppliers (including fuels, maintenance supplies and services, retail goods and professional services). Sales, use and indirect business taxes are estimated at $1.78 million per year.

Q. What are the land use impacts of the project?

A. Land use impacts are discussed in Section 5.1 of the Application. The site is located in an industrial zone within the City limits, and the City of Sumas testified at the land use consistency hearing that the project is a permitted use in the Industrial zoning district. The site is within a larger industrially-zoned area that includes both other industrial uses and farmlands. (A diagram of the site and the surrounding area is provided as Exhibit ___ (KC-4).) The IKO Pacific Inc. plant (an asphalt shingle plant) and Valley Plumbing and Electrical Appliance are located to the west. East across Bob Mitchell Avenue are Woodstone (stone-fired cooking equipment), Cover All Shelter Systems, American Wood Treaters (appears to be abandoned), and Desticon Transportation Inc. (lumber transport). To the south across Highway 9 is Socco Forest Products, the Sumas Cogeneration Company, and Dentech and Elenbaas Company (manufacturer of dental chairs). North of the site is an undeveloped industrial site (agricultural fields and trees) and Burlington Northern Railroad. A dairy farm is located north of the railroad.

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Q. What are the visual impacts of the project?

A. The S2GF will be located within an industrial area that is currently undergoing a transition from farmlands to industrial buildings. The construction will represent a change in the view from residents located to the north and drivers along State Highway 9 and Bob Mitchell Avenue. We have included a number of photo simulations in Section 5.1 of the Application to show the existing viewpoints, and the simulated view of the facility without and with landscape mitigation. SE2 is committed to retaining existing trees wherever possible and to planting large-sized native species trees to mitigate the view of the plant. They also plan to plant fast-growing trees such as poplars to expedite the development of a mature vegetation screen. The project components, including the emission stacks, will be painted in earth-tones to minimize contrast with the sky and surrounding area. As described in Section 3.2 of the Application, visible plumes from the wet/dry cooling system will occur but will usually be short. During periods of good visibility, condensed plumes will be less than 50 meters in length on average.

Q. What are the impacts of the natural gas pipeline?

A. The S2GF will use approximately 109 Mcf/day of natural gas to fuel the gas turbines. The natural gas will be produced in Canada and delivered by West Coast Pipeline Ltd. to the United States-Canadian border approximately one mile east of Sumas. A pipeline currently delivers natural gas to the Sumas Cogeneration Facility located just south of the SE2 project site. A new 4.25 mile long 16-inch natural gas line will be constructed parallel to that line to supply natural gas to the proposed facility. The

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pipeline will be drilled under the Sumas River and creeks which will be crossed by the pipeline to protect the water quality and the aquatic habitats.

Installation of the pipeline will cause some temporary disturbance of agricultural croplands and agricultural grasslands located within the existing pipeline right-of-way. The pipeline will be placed deep enough to allow agricultural activities to resume over the pipeline. There would also be temporary impacts to approximately 0.6 acres of palustrine emergent wetlands and one small palustrine scrub shrub wetland. Most of the disturbance would be in agricultural areas maintained as hayed pasture or as corn cropland during the 1999 growing season. All wetlands disturbed during the installation of the pipeline will be graded to pre-project contours that will allow existing wetland conditions and agricultural activities to re-establish.

Although the existing natural gas line has been operating safely for many years, SE2 understands the safety concerns that accompany pipeline proposals. SE2 will design, construct and operate the proposed natural gas pipeline in accordance with all federal and state regulations, and will exceed those regulatory requirements in many respects. Ted Potter's testimony addresses these issues in greater detail.

Q. What are the impacts of the electrical transmission lines?

A. First, I would like to reiterate that the only electrical transmission lines that are part of this Application are the 230 kV lines that will cross the U.S. – Canadian border, connecting the facility to B.C. Hydro's Clayburn Station. SE2 has no plans to construct transmission lines across Whatcom County and, as far as we know, no other

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utility is currently proposing to build such lines. If another utility did decide to purchase power from SE2 and to transmit it directly through the County, that utility would need to go through a separate environmental review and permitting process before constructing transmission lines in the county. EFSEC's DEIS examines the impacts of two Whatcom County routes as potential future actions, but there is currently no proposal to construct such routes.

SE2 proposes to connect the plant to the Canadian electric grid by constructing a new 5.9 mile transmission line from the facility to BC Hydro's Clayburn substation. The new transmission line will parallel Bob Mitchell Avenue and an existing railroad corridor in the City of Sumas. There will be eleven new transmission poles, as shown on Figure 2.4-1 in Section 2.4 of the Application. Typically, the transmission line poles will be placed on road shoulders to facilitate maintenance and to avoid direct impacts on wetlands and along Sumas Creek. One pole may be located at the northeast edge of an existing palustrine scrub shrub wetland. The impact would be less than 0.1 acre. This wetland is also the subject of an unrelated construction activity for which approval to fill the wetland is currently under review by the U.S. Army Corps of Engineers. If the Corps permit process is completed and the unrelated project construction fills the wetland, no impacts on wetlands will occur from the installation of the transmission poles.

Emissions generated by the 230 kV lines would be amplitude-modulated (AM) and would not interfere with incoming frequency-modulated (FM) television signals or the City's incoming FM cable television signal from a satellite. In addition, the S2GF

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substation and transmission lines are well outside of the transmission path of the City's FM television signals. The FM television signals are highly directional. Based on the distance of the antennas above the horizon, there would not be an occasion for the 230 kV transmission line to directly interfere with the television transmission path.

END OF DIRECT TESTIMONY

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